UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,027	11/19/2003	Richard L. Bohl	PROPH1100-1	7323

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DLA PIPER RUDNICK GRAY CARY US, LLP
2000 University Avenue
E. Palo Alto, CA 94303-2248

EXAMINER
LIN, SUN J

ART UNIT	PAPER NUMBER
2825	

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/717,027	BOHL ET AL.
	Examiner	Art Unit	
	Sun J. Lin	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _11/29/2003_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-36_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _13-18 and 30-35_ is/are allowed.

6)☒ Claim(s) _1-12, 19-29 and 36_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _11/19/2003_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _11/19/03, 8/25/04_.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to application 10/717,027 filed on 11/19/2003.
Claims 1 – 36 remain pending in the application.

Drawing Objections

2.   Drawings are objected to because of following informalities:

> Fig. 4, label —**Yes**— and —**No**— on two paths branching from "resolved?" Box
> 366.

Appropriate correction is required.

Claim Objections

3.   Claims listed below are objected to because of the following informalities:

> Claim 1, line 1, change "a device" to —**an electronic device**—.
> Claim 3, line 2, before "at least" insert —**the**—.
> Claim 10, line 3, before "design" insert —**device**—.
> Claim 12, line 5, delete —**one of the**—.
> Claim 13, line 1, change "a device" to —**an electronic device**—.
> Claim 13, line 6, after "executing" delete —**on**—.
> Claim 16, line 3, change "the design" to —**a device design**—.
> Claim 29, line 6, delete —**one of the**—.
> Claim 30, line 6, after "executing" delete —**on a**—.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the
> invention by the applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the

international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5.   Claims 1 – 12, 19 – 29 and 36 are rejected under 35 U.S.C. 102(e) as being unpatentable over U.S. Patent Application Publication No. 2003/0149919 to _Greenwald et al._

6.   As to Claim 1, _Greenwald et al._ show and teach the following subject matter:

- Fault diagnosis engine – [Fig. 3]; Systems and method for diagnosing faults in computer networks (i.e., communication devices) – [title; abstract]; Notice that (1) the fault diagnosis engine applies computer-implemented fault diagnosis method (2) a computer network is an electronic device;
- Detecting 32 a _fault_ (i.e., _symptom_) of a (communication) device design – [Fig. 2]; Particular symptom …detected fault – [Paragraph 0092]
- Diagnosing the fault (symptom) 40 – [Fig. 2];
- Performing _determination of a (potential) root cause_ of the fault (symptom), a series of _fault impact analysis_ 50 and proposing _solutions 90_, which is a set of activities, following the diagnosing the fault – [Paragraph 0059];
- Root cause analysis – [Paragraph 0038]; Possible suspect may be causing the symptom– [Paragraph 0095]

For reference purposes, the explanations given above in response to Claim 1 are called **[Response A]** hereinafter.

7.   As to Claim 19, reasons are included in **[Response A]** given above.

8.   As to Claims 2 and 20, as explained in **[Response A]** given above, _Greenwald et al._ disclose determining a (potential) root cause is of the fault is an activity after performing the diagnosing the fault – [Paragraph 0059].

For reference purposes, the explanations given above in response to Claims 2 and 22 are called **[Response B]** hereinafter.

9.   As to Claims 3 and 21, in addition to reasons included in **[Response A]** and **[Response B]** given above, _Greenwald et al._ show in Fig. 3 that fault diagnosis engine sends _fault handler_ (i.e., _operator_) information regarding a potential root cause – [Fig. 3].

10.   As to Claims 4, 5, 22 and 23, _Greenwald et al._ show and teach that at least one _solution_ (i.e., _remedy_), which is to be applied to the device design, is proposed to a user (i.e., operator) – [Fig. 2; Fig. 3; Paragraph 0059, 0060, 0071].

      For reference purposes, the explanations given above in response to Claims 4, 5, 22 and 23 are called **[Response C]** hereinafter.

11.   As to Claims 7 and 25, _Greenwald et al._ show and teach the subject matter regarding automated testing or executing at least one remedy (solution) – [Fig. 2A; Fig. 3; Paragraph 0064, 0065].

      For reference purposes, the explanations given above in response to Claims 7 and 25 are called **[Response D]** hereinafter.

12.   As to Claims 6 and 24, _Greenwald et al._ teach that fault handler may resident externally to a separate process ... handle a _particular fault type_ – [Paragraph 0071]. Notice that the external fault handler provide a specific remedy to the system for the particular fault type detected.

13.   As to Claims 8 and 26, _Greenwald et al._ show and teach the subject matter in Fig. 2A.

14.   As to Claims 9 and 27, _Greenwald et al._ show and teach fault diagnosis engine triggers an appropriate fault handler by means of switching from fault handler (i.e., design tool) to another fault handler (design tool) – [Fig. 2A; Fig. 3; Paragraph 0064].

15.   As to Claim 10, _Greenwald et al._ show and teach providing solutions to remedy fault(s) detected in device design of a communication network (electronic device). It is inherent that the communication network is manufactured in accordance with the device design, which is fault-free.

For reference purposes, the explanations given above in response to Claim 10 are called [**Response E**] hereinafter.

16.   As to Claims 11 and 28, *Greenwald et al.* show and teach fault diagnosis engine automatically generates a trigger (i.e., control) to trigger an appropriate fault handler (design tool) – [Fig. 2A; Fig. 3; Paragraph 0064].

17.   As to Claims 12 and 29, in addition to reasons included in [**Response A**], [**Response C**] and [**Response D**] given above, *Greenwald et al.* show and teach the following subject matter:

- Diagnosing (i.e., analyzing) *fault data* (i.e., generated fault data) in communication network – [Paragraph 0035, 0036]; Notice that data in the communication network under study is generated using a device design (data) source.

For reference purposes, the explanations given above in response to Claims 12 and 29 are called [**Response E**] hereinafter.

18.   As to Claim 36, reasons are included in [**Response A**], [**Response D**] and [**Response E**] given above.

Allowable Subject Matter

19.   Claims 13 – 18 and 30 – 35 are allowed. Those claims are allowed is because that the prior art does not teach or fairly suggest the following subject matter:

- A computer-implemented method of designing an electronic device comprising *executing a first remedy when reaching a decision point* and *selecting a second remedy when backtracking to the decision point* in combination with other limitations as recited in independent **Claim 13**;
- A computer-implemented method of designing an electronic device comprising *switching priorities between a first remedy and a second remedy after testing or executing the first remedy and the second remedy* in combination with other limitations as recited in independent **Claim 18**;

- A data processing system readable medium having code embodied therein, the code comprising *an instruction for executing a first remedy* and *an instruction for selecting a second remedy when backtracking to a decision point* in combination with other limitations as recited in independent **Claim 30**;
- A data processing system readable medium having code embodied therein, the code comprising *an instruction for switching priorities between a first remedy and a second remedy after testing or executing the first remedy and the second remedy* in combination with other limitations as recited in independent **Claim 35**.

Conclusion

20.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Sun James Lin* whose telephone number is (571) 272 - 1899. The examiner can normally be reached on Monday-Friday 9:30AM - 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Jack Chiang* can be reached on (571) 272 - 7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sun James Lin
Patent Examiner
Art Unit 2825
January 19, 2006